IN THE CLAIMS:

1. (Original) A method, operable in a data processing system having a host, for performing an input/output transaction, comprising:

    sending a memory address of a request via remote direct memory access to an adapter;

    retrieving the request, under the control of the adapter, via remote direct memory access from the host; and

    initiating, under the control of the adapter, a remote direct memory access transfer with the host, responsive to the request.

2. (Original) The method of claim 1, wherein the transfer includes the adapter's reading memory from the host.

3. (Original) The method of claim 1, wherein the transfer includes the adapter's writing to memory of the host.

4. (Original) The method of claim 1, wherein the request includes remote direct memory access parameters.

5. (Original) The method of claim 4, wherein the remote direct memory access parameters include at least one of a transaction ID, a list of request and data remote memory data segments, a type of storage command, an identification of a storage device, an address on a storage device, and a data length.

6. (Original) The method of claim 1, further comprising:

    receiving a confirmatory response via remote direct memory access transfer from the adapter.

7. (Original) A method, operable in a data processing system having an adapter, for performing an input/output transaction, comprising:

receiving via remote direct memory access, the address of a request from a host;

retrieving via remote direct memory access the request; and

performing a remote direct memory access transfer with the host, based on the request.

8. (Original) The method of claim 7, wherein the transfer includes reading memory from the host.

9. (Original) The method of claim 8, further comprising:
writing data read from the memory to a storage device.

10. (Original) The method of claim 7, wherein the transfer includes writing to memory of the host.

11. (Original) The method of claim 10, further comprising:
reading, from a storage device, data to be written to the memory.

12. (Original) The method of claim 7, wherein the request includes remote direct memory access transfer parameters.

13. (Original) The method of claim 12, wherein the remote direct memory access parameters include at least one of a transaction ID, a list of request and data remote memory data segments, a type of storage command, an identification of a storage device, an address on a storage device, and a data length.

14. (Original) The method of claim 7, further comprising:
sending a confirmatory response via remote direct memory access to the host.

15. (Original) A computer program product in a computer readable medium for execution in a data processing system having a host, comprising instructions for:

sending a memory address of a request via remote direct memory access to an adapter;

retrieving the request, under the control of the adapter, via remote direct memory access from the host; and

initiating, under the control of the adapter, a remote direct memory access transfer with the host, responsive to the request.

16.   (Original) The computer program product of claim 15, wherein the transfer includes the adapter's reading memory from the host.

17.   (Original) The computer program product of claim 15, wherein the transfer includes the adapter's writing to memory of the host.

18.   (Original) The computer program product of claim 15, wherein the request includes remote direct memory access transfer parameters.

19.   (Original) The computer program product of claim 18, wherein the remote direct memory access parameters include at least one of a transaction ID, a list of request and data remote memory data segments, a type of storage command, an identification of a storage device, an address on a storage device, and a data length.

20.   (Original) The computer program product of claim 15, comprising additional instructions for:

receiving via remote direct memory access a confirmatory response from the adapter.

21.   (Original) A computer program product in a computer readable medium for execution in a data processing system having an adapter, comprising:

receiving via remote direct memory access the address of a request from a host;

retrieving via remote direct memory access the request; and

performing a remote direct memory access transfer with the host, based on the direct memory access request.

22.   (Original) The computer program product of claim 21, wherein the transfer includes reading memory from the host.

23.   (Original) The computer program product of claim 22, comprising additional instructions for:

writing data read from the memory to a storage device.

24.   (Original) The computer program product of claim 21, wherein the transfer includes writing to memory of the host.

25.   (Original) The computer program product of claim 24, comprising additional instructions for:

reading, from a storage device, data to be written to the memory.

26.   (Original) The computer program product of claim 21, wherein the request includes remote direct memory access transfer parameters.

27.   (Original) The computer program product of claim 26, wherein the remote direct memory access parameters include at least one of a transaction ID, a list of request and data remote memory data segments, a type of storage command, an identification of a storage device, an address on a storage device, and a data length.

28.   (Original) The computer program product of claim 21, further comprising:

sending via remote direct memory access a confirmatory response to the host.

29.   (Original) A data processing system comprising:

a bus system;

a processing unit connected to the bus system, wherein the processing unit

includes at least one processor;

a memory;

a host channel adapter in connection with a system area network; and

a set of instructions in the memory,

wherein the processing unit executes the set of instructions to perform the acts of:

sending a memory address of a request via remote direct memory access to

an adapter;

retrieving the request, under the control of the adapter, via remote direct

memory access from the host; and

initiating, under the control of the adapter, a remote direct memory access

transfer with the host, responsive to the request.

30.   (Original) The data processing system of claim 29, wherein the transfer includes
the input/output device adapter's reading the memory.

31.   (Original) The data processing system of claim 29, wherein the transfer includes
the input/output device adapter's writing to the memory.

32.   (Original) The data processing system of claim 29, wherein the request includes
remote direct memory access transfer parameters.

33.   (Original) The data processing system of claim 32, wherein the remote direct
memory access parameters include at least one of a transaction ID, a list of request and
data remote memory data segments, a type of storage command, an identification of a
storage device, an address on a storage device, and a data length.

34.   (Original) The data processing system of claim 29, wherein the processing unit
performs the additional act of:

receiving via remote direct memory access a confirmatory response from the
input/output device adapter.

35. (Original) A data processing system comprising:

a bus system;

a processing unit connected to the bus system, wherein the processing unit includes at least one processor;

a first memory;

a target channel adapter in connection with a system area network; and

a set of instructions in the first memory,

wherein the processing unit executes the set of instructions to perform the acts of:

receiving via remote direct memory access, the address of a request from a host;

retrieving via remote direct memory access the request; and

performing a remote direct memory access transfer with the host, based on the request.

36. (Original) The data processing system of claim 35, wherein the transfer includes reading a second memory from the host.

37. (Original) The data processing system of claim 36, wherein the processing unit performs the additional act of:

writing data read from the second memory to a storage device.

38. (Original) The data processing system of claim 35, wherein the transfer includes writing to a second memory of the host.

39. (Original) The data processing system of claim 38, wherein the processing unit performs the additional act of:

reading from a storage device data to be written to the second memory.

40. (Original) The data processing system of claim 35, wherein the request includes remote direct memory access transfer parameters.

41.   (Original) The data processing system of claim 40, wherein the remote direct
memory access parameters include at least one of a transaction ID, a list of request and
data remote memory data-segments, a type of storage command, an identification of a
storage device, an address on a storage device, and a data length.

42.   (Original) The data processing system of claim 35, wherein the processing unit
performs the additional act of:

sending via remote direct memory access a confirmatory response to the host.